DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: On-site Inspection

N649662396

FACILITY: Hutchinson Aerospace &	k Industry	SRN / ID: N6496
LOCATION: 1300 S COUNTY FAR	M RD, ITHACA	DISTRICT: Lansing
CITY: ITHACA		COUNTY: GRATIOT
CONTACT: Donald English , Mainte	enance Manager	ACTIVITY DATE: 03/29/2022
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Onsite, unannounced in	spection to determine compliance with opt-out PTI	57-05C
RESOLVED COMPLAINTS:		

Personnel Present: Donald English, Maintenance and HS&E Manager (donald.english@hutchinsoninc.com)

Purpose: Conduct an unannounced, scheduled, partial compliance evaluation (PCE) inspection by determining compliance with Hutchinson's' Permit No. 57-05C, including verification that Hutchinson stayed within the permit's emission limits to remain an opt-out source. This inspection was conducted as part of a full compliance evaluation (FCE).

Facility Background/Regulatory Overview: Hutchinson makes suspension wraps for armored humvees, and heat-resistant suspension mounts for heavy trucks, Harley Davidson, the Cummins diesel, Peterbilt, etc.

Hutchinson is an opt-out facility: there are facility-wide individual and aggregate HAPs restrictions.

PTI 57-05C, issued February 20, 2018, was written to include the addition of EU-TURBOSPRAY, an emission unit transferred from the Hutchinson facility in Cadillac. EU-TURBOSPRAY was installed on August 5, 2019.

D. English said they operate 3 shifts, 24 hours per day, where production on second shift is lower than the other 2 shifts.

Inspection: At approximately 8:30 a.m. on March 29, 2022 I arrived at Hutchinson and met with Don English, Maintenance and HS&E Manager. He informed me they were going through several audits that morning and were very busy. I offered to return later in the day to allow Hutchinson time to conduct their other audits and provide AQD with their undivided attention. At approximately 1:30 p.m. I arrived onsite to conduct the inspection with D. English.

D. English and I reviewed the list of emission units as provided in PTI 57-05C, as well as a list of emission units that Hutchinson believes meet AQD exemption rules. Table 1 contains a list of all emission units onsite. I verified with D. English that there are no emergency generators or boilers located at the facility.

Table 1. Emission Unit List

EU	Description	Control	PTI/ Exemption	Flexible Group	Installation/
EU- RUBBERMOLDING	Rubber injection molding and compression presses not to exceed a total of 56 presses installed.	Central ventilation with 80 cartridge HEPA filters, 70% presses	57-05C	FGFACILITY	11-17-98/ 3-18-16

		controlled, at a minimum			
EU-DESPATCH 1 & 2	2 electrically heated ovens used for post-cure of metal and rubber parts, and some post-cure of adhesive coated metal parts	NA	57-05C	FGDESPATCH, FGFACILITY	3-24-05
EUADHESIVEDIP1 &	Enclosed dual tanks for adhesive dip machine with overhead cure oven	RTO	57-05C	FGRTO, FGFACILITY	3-1-00 (line 1) 10-1-02 (line 2)
EUMANUALBOOTH	Manual "walk-in" spray booth	Dry filters RTO	57-05C	FGRTO,	5-1-05
EUAPM1 & 2	Automatic spray paint/adhesive machine/booth with hot air dryers	Dry filters for coating	57-05C	FGRTO,	5-1-05
EUTURBOSPRAY (APM 4)	Rotary spray booth applies adhesive to metal and plastic parts using HVLP or equivalent	Permanent Total Enclosure RTO	57-05C	FGRTO,	8-5-2019
I Parts Washer	2.5'x1.5' parts washer containing Safety Kleen solution, DEQ-sponsored orange operating instructions posted	Lid closed	Rule 281(2) (h)	NA	NA
Phosphate Line	To clean raw seals and parts (oils are present when parts/seals are received). Vented to ambient air through a stack	Scrubber	Proposed to operate under Rule 291	NA	TBD
APM3	Automatic Paint Machine #3	NA	Proposed to operate under Rule 290	NA	2019 (to be confirmed)

	Application of coating (Thixon) to tubes and washers using a brushtype applicator. Hot airdried				
Wold Shot blasting	Cleans molds using shot	Baghouse, vented to in- plant environment	Rule 285(2)(I) (B)	NA	NA
Jitra sonic cleaner	Parts cleaner. Uses 2 chemicals: 25-i and DIRL-STRIP 606.	NA	Rule 281(2) (e)	NA	NA
	25-i contains Alkyl-Aryl sulfonate at <5%, which has a vapor pressure <<0.1 mmHg, and therefore meets the exemption requirement.				
	DIRL-STRIP is a powder.				

EU-RUBBERMOLDING

EU-RUBBERMOLDING allows a maximum of 56 injection molding and compression presses installed, with a minimum of 70% of the presses being controlled by a centralized fabric filter. D. English said Hutchinson has an 80-cartridge HEPA filter filtration system to capture the fumes from the rubber injection molding and compression presses.

There are no Testing/Sampling requirements for EU-RUBBERMOLDING at this time.

Emission Limits, Design/Equipment Parameters & Monitoring/Recordkeeping

VOCs from rubber processing are limited to 3.1 tpy on a 12-month rolling basis, as determined at the end of each calendar month. Hutchinson is required to maintain records for the VOC emission factor for each type of rubber processed; the type and amount of each rubber processed (monthly and 12-month rolling) and the VOC mass emission calculations (monthly and 12-month rolling).

Hutchinson currently uses two "types" of rubber, Rubber #3 and Rubber #11, which are labeled according to EPA's nomenclature under AP-42, Section 4.12. Sue Kuieck, Hutchinson's consultant from Fishbeck, said that Hutchinson chooses the EPA rubber compound type that best fits their formulation. Generally, each EPA rubber compound type is determined by the base rubbers in the mixture. Rubber #3 contains natural rubber and Rubber

#11 contains neoprene. I verified that Hutchinson is using the AP-42 VOC emission factors for Rubber Compounds #3 (1.04 E-3 lb VOC/lb rubber) and #11 (2.40 E -4 lb VOC/lb rubber) for Platen Press Curing (emission factors attached) for the monthly and 12-month rolling VOC emissions.

The 12-month rolling VOC emissions data from January 2021 – February 2022 were reviewed (see attached). The highest 12-month rolling VOC emission rate was **0.41 tpy** for the 12-month rolling periods ending in January and February 2022. Hutchinson is within the **3.1 tpy VOC limit** at this time.

Visible emissions from the centralized 80-cartridge HEPA filter system are limited to 5% opacity on a 6-minute average. While outside observing the filtration system we did not observe any visible emissions coming from the stack while the EURUBBERMOLDING emission units were operating. D. English said that the post-filter emissions are only vented outside during the summer months. During the winter months the hot, filtered exhaust air is pushed back into the facility.

There are a total of five 55-gallon drums used to collect any post-filter particulate. D. English said that these barrels have never been full, and showed me during the inspection that they were empty, indicative of either a highly efficient filtration system or that particulate emissions from the rubber molding processes are minimal. D. English explained that the rubber fumes are only emitted when the molding and press operations open.

D. English explained that the HEPA filters on the bottom rows become dirtier than the filters near the top, and so when the filters are changed the bottom cartridges are removed and thrown into garbage bags right at the cartridge filter system before being thrown into a dumpster. The top filters are then moved to the bottom of the unit and top filters are then replaced with new filters. D. English said that the filters are replaced when the pressure drop increases toward the maximum of the operating range, or every 6 months, whichever comes first.

Hutchinson is required to install, calibrate and maintain a device to monitor the pressure drop on the fabric filtration system, and they are required to monitor and record the pressure drop on a continuous basis. D. English confirmed with the manufacturer that the operating range on the fabric filter is 0.05-2.5 in H_2O . He also confirmed with the manufacturer that the pressure drop gauge is not required to be calibrated. During the inspection I recorded a pressure drop of 0.81 in H_2O across the system. D. English provided me with daily pressure drop records for July 2021 and January and February 2022. Readings were taken daily throughout these time periods and all pressure drops were within the 0.05-2.5 in. H_2O operating range (see attached record).

Based on the pressure drop records and as evidenced by 0% opacity from the baghouse system, AQD does not believe at this time that it is necessary for Hutchinson to conduct stack testing on the baghouse to confirm compliance with the PM, PM10 and PM2.5 emission rates established in PTI 57-05C.

Material Limits & Monitoring/Recordkeeping

Hutchinson is limited to **6,000,000 lbs** of rubber per 12-month rolling time period and is required to record the amount and type of rubber processed in lb/calendar month and per 12-month rolling time period. According to Hutchinson's 12-month rolling emission summary data (attached) for January 2021 – February 2022, the highest rubber usage was **1,335,802 lbs** of rubber for the 12-month rolling period ending in October 2021. Hutchinson is within the 6,000,000 lb limits.

Design/Equipment Parameters & Monitoring/Recordkeeping

Hutchinson is limited to a total of 56 presses installed at any given time, and a minimum of 70% of those presses must be controlled by the central ventilation system leading to the HEPA filter baghouse. A record of the current listing of presses installed and a current listing of whether each installed press exhausts to the fabric filter or to the in-plant environment is required to be kept.

D. English provided me a record of all presses (attached) and whether each was vented to the control system or not. According to this documentation, there is a total of 34 presses installed onsite and 24 (70%) of those rubber presses are vented to the control system.

Stack/Vent Restrictions

The stack height of 40 feet above ground level may be verified during a future inspection using AQD's Nikon Forestry II Pro Rangefinder.

Hutchinson is in compliance with all conditions associated with EU-RUBBERMOLDING at this time.

FG-DESPATCH

FG-DESPATCH includes 2 electrically-heated ovens used for post-curing of parts to ensure the rubber and metal bond to each other. Although PTI 57-05C and the older version, PTI 57-05B, state that these units are controlled by an RTO in the emission unit tables, the PTI Evalform for each PTI specifies that FG-RTO contains all emission units controlled by the RTO and EUDESPATCH1 & 2 are not among the listed emission units. There are no control devices associated with these units at the facility. I will work with the company to modify PTI 57-05C.

There are currently no Process/Operational Restrictions, Design/Equipment Parameters, Testing/Sampling, or Reporting requirements for FG-DESPATCH.

Emission Limits & Monitoring/Recordkeeping

Hutchinson is limited to a total of 4.0 tpy VOC per 12-month rolling period from both units under FG-DESPATCH combined. Hutchinson is required to maintain a current listing from the manufacturer of the chemical composition of each type of rubber, including the wt% of each component, in addition, they need to keep record of the VOC emission factor for each type of rubber processed, and the VOC mass emission calculations on a monthly and 12-month rolling basis.

Rubber #3 is currently processed in the FG-DESPATCH ovens. S. Kuieck said that Hutchinson uses an emission factor of 0.055 lb VOC/lb rubber, an emission factor that she asserts is what was agreed upon during the permitting process. This emission factor overestimates their FG-DESPATCH VOC emissions. The VOC emissions from the despatch ovens are calculated and recorded on a monthly and 12-month rolling time period. According to Hutchinson's 12-month rolling emission summary data (attached) for January 2021 – February 2022, the highest VOC emission rate was **0.94 tpy** for the 12-month rolling period ending in February 2022. Hutchinson appears to be in compliance with the **4.0 tpy** VOC limit at this time.

Material Limits & Monitoring/Recordkeeping

Hutchinson is **limited to 140,500 lb/year** of rubber processed through the despatch ovens. They are required to record the amount and type of rubber processed in lb/calendar month and lb/12 month rolling time period. According to Hutchinson's 12-month rolling emission summary data (attached) for January 2021 – February 2022, the highest rubber usage was **34,149 lbs** of rubber for the 12-month rolling period ending in February 2022. Hutchinson is within the rubber limits at this time.

D. English explained that not all rubber parts that are pressed are further processed in the despatch ovens; only those that need additional curing time are processed in the ovens.

Stack/Vent Restrictions

The stack height of 42 feet above ground level applies to both ovens. Stack height may be verified during a future inspection using AQD's Nikon Forestry II Pro Rangefinder.

Hutchinson is in compliance with all conditions associated with FG-DESPATCH at this time.

FG-RTO

FG-RTO covers adhesive-to-rubber coating operations and according to the permit, includes EU-ADHESIVEDIP1 & 2, EU-MANUALBOOTH, EU-APM1 & 2, EU-PRODPLUS, and EU-TURBOSPRAY.

I was informed during this inspection that the EU-PRODPLUS that was permitted is no longer at the facility. EU-PRODPLUS was replaced with a "baby" turbo spray that Hutchinson refers to as APM3. Hutchinson has submitted an exemption demonstration for this emissions unit. Compliance will be determined once AQD completes review of this demonstration.

A Permanent Total Enclosure is required only for EU-TURBOSPRAY in order to assume 100% capture. Hutchinson assumes 95% capture on all other EU's contained within FG-RTO.

There are currently no Material Limits for FG-RTO or EU-TURBOSPRAY.

Emission Limits, Design/Equipment Parameters, Testing/Sampling & Monitoring/Recordkeeping

The RTO was tested for compliance with the 95% destruction efficiency requirement on January 7, 2020. Test results indicate compliance at 96.23% destruction efficiency when all emission units within FG-RTO are being operated. Hutchinson uses this destruction efficiency to calculate emissions from EU-TURBOSPRAY, and uses a destruction efficiency of 91.4% for all other EU emissions to account for 95% capture (as opposed to 100% capture on EU-TURBOSPRAY). The 95% capture efficiency was a recommendation by AQD Technical Programs Unit (TPU) during the 2004 capture and destruction efficiency test on the RTO. S. Kuieck, Hutchinson's consultant, said that when the stack test was conducted, the AQD TPU staff said even though Hutchinson's process met the Method 204 requirements for permanent total enclosures (PTEs), Hutchinson should use 95% for capture efficiency because they are not required to do the pressure drop monitoring that PTE's currently need to comply.

Hutchinson is limited to 30.0 tpy VOCs on a 12-month rolling period for all emission units in FG-RTO and limited to 1.30 tpy per 12-month rolling period for EU-TURBOSPRAY. The following records are required to be kept for EU-TURBOSPRAY and FG-RTO, separately: Gallons with water and VOC content with water of each adhesive, coating and solvent used; and the VOC mass emission calculations on a monthly and 12-month rolling period.

Additionally, Hutchinson is required to determine VOC content, water content and density by Method 24 analysis, or, if approved by the AQD District Supervisor, can determine these 3 coating parameters using manufacturer's formulation data. Hutchinson received approval from AQD to use manufacturer's formulation data in lieu of Method 24 testing on the adhesives and coatings. Hutchinson's consultant, S. Kuieck, as well as myself, verified that Hutchinson uses Air Quality Data Sheets (a type of manufacturer formulation data) to determine VOC content, water content, and density of each coating and adhesive used in FG-RTO.

The 12-month rolling VOC emissions records were reviewed from January 2021 – February 2022. EU-TURBOSPRAY has been used sporadically since its installment in August 2019: 4 months of operation in 2019 and 3 months of operation in 2020. The 12-month rolling emissions during this time period was 0 tons. During this same period, FG-RTO VOC emissions where highest during the 12-month period ended in June 2021, at 5.38 tons.

Hutchinson appears to be within the emission limits of both EU-TURBOSPRAY and FG-RTO at this time.

Process/Operational Restrictions

Hutchinson is required to capture all waste materials and store them in closed containers. I saw no containers open to atmosphere.

Additionally, Hutchinson is required to dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. D. English said that the spent filters are collected in bins inside the plant and allowed to dry before being crushed down in a drum to ship out for disposal. It is my professional judgment that this process minimizes the introduction of the paint particulates to the outer air as all fabric filters are handled and captured within the plant environment prior to disposal.

A Malfunction Abatement Plan is required for the RTO. The MAP was originally submitted to AQD on May 15, 2018. The final, AQD-approved version was submitted to AQD on July 27, 2018. The plan was last revised January 2022. Follow-up with Hutchinson to address the drop in temperature below 1400F will occur and discussions of updating the MAP to include malfunctions where the RTO drops below 1400F (See "Design/Equipment Parameters & Monitoring Recordkeeping" for additional information).

Design/Equipment Parameters & Monitoring/Recordkeeping

Hutchinson is required to operate the spray booth portions of FG-RTO with the exhaust filters installed and operated in a satisfactory manner. I did not see any opacity from any of the stacks while outside. Each booth was observed to ensure proper installation and operation of the filters. Table 2 contains summaries of these observations. Issues were noted for EUMANUALBOOTH and EUAPM2.

Table 2. Filter Observations

EU	Fabric Filter status	Type of applicator	Operating Status
EU-ADHESIVE1	NA	Dip	On
EU-ADHESIVE2	NA	Dip	On
EU-MANUALBOOTH	The primary filters were not installed properly – gaps were seen between the filter and the exhaust outlet of the paint booth. Issue was corrected onsite during the inspection by clipping the filters down to ensure no buckling or bulging to eliminate the gaps.	applicators	Off
	D. English said he plans to followup with the day shift supervisor to ensure the filters are installed properly at all times when booth is being operated.		
EU-APM1	Filters replaced weekly to prevent damage to RTO prefilters. Filters appeared to be installed properly. Failure to ensure proper operation of the filters in the future may result in a violation.	Automatic applicators	Off
EU-APM2	Filters on this unit were buckling causing gaps between the filter and the exhaust outlet. I pointed this out to D. English who had supervisory staff correct the issue while onsite during the inspection. Filters replaced weekly to prevent damage to RTO prefilters.	Automatic applicators	On

	D. English said he plans to followup with the day shift supervisor to ensure the filters are installed properly at all times when booth is being operated.		
EU-TURBOSPRAY	Filters appeared to be installed properly	Automatic applicator	Off

The RTO, which controls all VOC emissions from the emission units in FG-RTO, was operating at 1513°F during the inspection. Hutchinson is required to operate the RTO at a minimum of 1400°F, and the thermocouple is required to be installed, calibrated, and maintained in a satisfactory manner. RTO temperature continuous records are required to be kept. I requested continuous records for February 1 – 14, 2022 to verify that the temperature has been maintained at or above 1400°F. D. English provided me with a continuous record of RTO temperatures (data recorded every 10 seconds, chart & excel formats) for this time period (snapshot attached). There was a small dip in the temperature for a total of approximately 20 minutes during this 2-week period where the temperature was below 1400°F (the lowest value at 1341°F). I will discuss with Hutchinson whether this type of occurrence is commonplace and the possible need to address this deviation in temperature via the MAP.

D. English said the thermocouples are calibrated and a calibration sticker is present on the monitor indicating that the thermocouples were last calibrated on 8/9/21.

A differential pressure gauge is required to be installed, calibrated, maintained and operated in a satisfactory manner for EU-TURBOSPRAY to ensure a minimum of 0.007 inches of water pressure differential is established between the PTE of EU-TURBOSPRAY and the adjacent area. The turbo spray was not being operated during the inspection, therefore pressure drop was not verified.

Stack/Vent Restrictions

The stack height of 42 feet above ground level may be verified during a future inspection using AQD's Nikon Forestry II Pro Rangefinder.

Hutchinson is in compliance with all conditions associated with FG-RTO at this time, with further discussions and possible MAP updates for the RTO temperature drop.

FGFACILITY

FGFACILITY covers all process equipment source-wide, including equipment covered by other permits, grand-fathered equipment and exempt equipment.

There are currently no Material Limits, Process/Operational Restrictions, or Design/Equipment Parameters for FGFACILITY.

Emission Limits, Testing/Sampling & Monitoring/Recordkeeping

Hutchinson is limited to 9.0 tpy for each individual HAP and 22.5 tpy for aggregate HAPs post-control. The RTO is used to control HAP from all units under FG-RTO.

Hutchinson is required to determine the HAP content of any material, as applied and as received, using manufacturer's formulation data. I verified that Air Quality Data Sheets (AQDS) and Environmental Data Sheets (EDS) are used to ensure compliance with this requirement.

S. Kuieck provided me with a HAPs emissions summary sheet for January 2021 - February 2022, including monthly and 12-month rolling HAP emissions (individual and aggregate). The largest quantity of a single HAP emitted was 4.5 tons in the form of toluene during the 12-month period ending in June 2021; and the greatest aggregate HAPs emitted was 5.4 tons, also during the 12-month period ending in June 2021.

All reported HAPs emissions include both permitted and exempt equipment (APM3 and the phosphate line).

Hutchinson is in compliance with all conditions associated with FGFACILITY.

Exempt Emission Units

The status of compliance for APM #3 and the phosphate line are to be determined. They are installed and proposed to be exempt under Rules 290 and 291, respectively. Hutchinson has provided the exemption determinations for these 2 processes. These will be reviewed, discussed with the company, and logged into AQD's database post-review.

The phosphate line was not operating during the inspection. The phosphate line consists of the following processes: 1. Wash 2. Tumble (prevents carryover) 3. Rinse 4. Acid (prepares metal for phosphate) 5. Phosphate coating (allows rubber to adhere to metal).

Safety Requirements: Hutchinson requires safety vests, hearing protection, steel-toed boots, and safety glasses.

Compliance statement: Hutchinson is in compliance with PTI 57-05C at this time.

NAME Michelle Luplow

DATE 5/4/22 SUPERVISOR

BM

EU-Turbospray Control Efficiency 2019 95%
RTO Control Efficiency 2019 93.7%
EUTURBOSPRAY Control Efficiency 2019 96.2%
RTO Control Efficiency 2020 9 91.4% EU-TURBOSPRAY VOC emissions (tons/month) EU-TURBOSPRAY VOC emissions (12 mon rolling tpy) FG-RTO VOC emissions (tons/month) FG-RTO VOC emissions (12-mon rolling tpy) Date
Limits
Jan-21
Feb-21
Mar-21
May-21
May-21
Jul-21
Jul-21
Jul-21
Jul-21
Jul-21
Nov-21
Nov-21
Nov-21
Jul-22
Feb-22
Mar-22
Mar-22
Mar-22
Mar-22

		Toluene			Xylene			Ethyl Benzene	2
Month	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)
Limit			9			9			9
January-21	592.21	0.30	3.83	58.57	0.03	0.26	13.77	0.01	0.06
February-21	307.56	0.15	3.74	21.05	0.01	0.27	4.88	0.00	0.06
March-21	808.47	0.40	3.88	36.46	0.02	0.26	8.52	0.00	0.06
April-21	546.82	0.27	3.88	26.18	0.01	0.26	6.09	0.00	0.06
May-21	353.69	0.18	3.94	31.49	0.02	0.27	7.34	0.00	0.06
June-21	1218.45	0.61	4.52	31.40	0.02	0.27	7.28	0.00	0.06
July-21	547.03	0.27	4.42	26.34	0.01	0.27	6.10	0.00	0.06
August-21	136.64	0.07	4.12	98.04	0.05	0.29	23.02	0.01	0.07
September-21	764.50	0.38	3.61	26.20	0.01	0.28	6.11	0.00	0.07
October-21	980.45	0.49	4.04	26.53	0.01	0.27	6.10	0.00	0.06
November-21	590.82	0.30	3.80	36.22	0.02	0.23	8.51	0.00	0.05
December-21	435.24	0.22	3.64	0.30	0.00	0.21	0.02	0.00	0.05
January-22	397.25	0.20	3.54	41.61	0.02	0.20	9.74	0.00	0.05
February-22	569.63	0.28	3.67	53.53	0.03	0.22	12.55	0.01	0.05
March-22	531.09	0.27	3.54	94.12	0.05	0.25	22.24	0.01	0.06



	MIBK		1	,1,1-trichloroetha	ne	2-	Chloro-1,3-Butadi	ene		Acetaldehyde			Acetophone					
Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)															
		9			9			9			9			9			9	
55.41	0.03	0.33	0.11	0.00	0.00	0.38	0.00	0.00	0.07	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.10
56.75	0.03	0.35	0.14	0.00	0.00	0.60	0.00	0.00	0.11	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.09
83.37	0.04	0.36	0.17	0.00	0.00	0.79	0.00	0.00	0.14	0.00	0.00	0.02	0.00	0.00	0.06	0.00	0.00	0.12
57.17	0.03	0.38	0.16	0.00	0.00	0.35	0.00	0.00	0.06	0.00	0.00	0.02	0.00	0.00	0.04	0.00	0.00	0.10
56.83	0.03	0.39	0.15	0.00	0.00	0.46	0.00	0.00	0.08	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.10
85.28	0.04	0.42	0.22	0.00	0.00	0.54	0.00	0.00	0.10	0.00	0.00	0.03	0.00	0.00	0.06	0.00	0.00	0.13
58.79	0.03	0.42	0.20	0.00	0.00	0.55	0.00	0.00	0.10	0.00	0.00	0.03	0.00	0.00	0.06	0.00	0.00	0.11
7.07	0.00	0.39	0.19	0.00	0.00	0.34	0.00	0.00	0.06	0.00	0.00	0.03	0.00	0.00	0.05	0.00	0.00	0.12
133.26	0.07	0.44	0.13	0.00	0.00	0.57	0.00	0.00	0.10	0.00	0.00	0.02	0.00	0.00	0.04	0.00	0.00	0.09
9.40	0.00	0.41	0.26	0.00	0.00	0.67	0.00	0.00	0.12	0.00	0.00	0.03	0.00	0.00	0.08	0.00	0.00	0.14
131.33	0.07	0.41	0.07	0.00	0.00	0.41	0.00	0.00	0.07	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.08
158.11	0.08	0.45	0.10	0.00	0.00	0.56	0.00	0.00	0.10	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.04
6.06	0.00	0.42	0.16	0.00	0.00	0.59	0.00	0.00	0.11	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.13
32.35	0.02	0.41	0.18	0.00	0.00	0.53	0.00	0.00	0.10	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.11
257.17	0.13	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11

Benzene			Biphenyl		bis(2-Ethylhexyl)phth	alate		Carbon Disulfide	2		Carbonyl Sulfide	!		Chloromethane		Cresol	
Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)															
	9			9			9			9			9			9		
0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	14.54	0.01	0.14	0.03	0.00	0.00	0.03	0.00	0.00	0.01	0.00
0.00	0.00	0.01	0.00	0.00	0.21	0.00	0.00	23.21	0.01	0.14	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.26	0.00	0.00	30.26	0.02	0.14	0.06	0.00	0.00	0.04	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.17	0.00	0.00	13.48	0.01	0.14	0.03	0.00	0.00	0.04	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.18	0.00	0.00	17.77	0.01	0.15	0.03	0.00	0.00	0.04	0.00	0.00	0.01	0.00
0.00	0.00	0.01	0.00	0.00	0.25	0.00	0.00	20.78	0.01	0.15	0.04	0.00	0.00	0.06	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.24	0.00	0.00	21.05	0.01	0.13	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.19	0.00	0.00	13.36	0.01	0.12	0.03	0.00	0.00	0.05	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.19	0.00	0.00	21.73	0.01	0.13	0.04	0.00	0.00	0.03	0.00	0.00	0.00	0.00
0.00	0.00	0.01	0.00	0.00	0.30	0.00	0.00	25.85	0.01	0.13	0.05	0.00	0.00	0.06	0.00	0.00	0.01	0.00
0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	15.72	0.01	0.12	0.03	0.00	0.00	0.02	0.00	0.00	0.02	0.00
0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	21.56	0.01	0.12	0.04	0.00	0.00	0.03	0.00	0.00	0.02	0.00
0.00	0.00	0.01	0.00	0.00	0.22	0.00	0.00	22.84	0.01	0.12	0.04	0.00	0.00	0.04	0.00	0.00	0.03	0.00
0.00	0.00	0.01	0.00	0.00	0.22	0.00	0.00	20.51	0.01	0.12	0.04	0.00	0.00	0.04	0.00	0.00	0.02	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00

		Cumene			Di-n-butylphthala	te		Dibenzofuran			Hexane		1	Methylene Chloric	de	Naphthalene			
Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)															
9			9															9	
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	1.55	0.00	0.01	0.17	0.00	0.00	0.09	0.00	0.00	0.12
0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	2.41	0.00	0.01	0.26	0.00	0.00	0.13	0.00	0.00	0.05
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	3.11	0.00	0.01	0.33	0.00	0.00	0.17	0.00	0.00	0.07
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	1.55	0.00	0.01	0.19	0.00	0.00	0.09	0.00	0.00	0.04
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	1.92	0.00	0.01	0.22	0.00	0.00	0.11	0.00	0.00	0.19
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	2.35	0.00	0.01	0.28	0.00	0.00	0.14	0.00	0.00	0.06
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	2.33	0.00	0.01	0.27	0.00	0.00	0.13	0.00	0.00	0.06
0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	1.62	0.00	0.01	0.20	0.00	0.00	0.10	0.00	0.00	0.05
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	2.24	0.00	0.01	0.24	0.00	0.00	0.12	0.00	0.00	0.05
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	2.89	0.00	0.01	0.34	0.00	0.00	0.17	0.00	0.00	0.26
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.58	0.00	0.01	0.16	0.00	0.00	0.09	0.00	0.00	0.29
0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	2.18	0.00	0.01	0.23	0.00	0.00	0.12	0.00	0.00	0.30
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	2.42	0.00	0.01	0.27	0.00	0.00	0.14	0.00	0.00	0.50
0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	2.24	0.00	0.01	0.26	0.00	0.00	0.13	0.00	0.00	0.31
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.48

	Phenol			Propylene Oxide	!
	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)
Ì		9			9
ĺ	0.00	0.00	1.25	0.00	0.01
	0.00	0.00	1.66	0.00	0.01
	0.00	0.00	1.95	0.00	0.01
	0.00	0.00	1.80	0.00	0.01
	0.00	0.00	1.69	0.00	0.01
	0.00	0.00	2.54	0.00	0.01
	0.00	0.00	2.30	0.00	0.01
	0.00	0.00	2.21	0.00	0.01
I	0.00	0.00	1.46	0.00	0.01
ĺ	0.00	0.00	2.94	0.00	0.01
	0.00	0.00	0.86	0.00	0.01
ĺ	0.00	0.00	1.19	0.00	0.01
	0.00	0.00	1.90	0.00	0.01
ĺ	0.00	0.00	2.07	0.00	0.01
1	0.00	0.00	0.00	0.00	0.01

	Tetrachloroether	ne		Trichloroethene			Methanol			Formaldehyde		1,1	,2-Trichloroeth	ane		Ethylene Glyco			Ethylene Glycol
Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)																	
		9			9			9			9			9			9		1
0.26	0.00	0.00	0.21	0.00	0.00	8.39	0.00	0.03	0.07	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.01	0.00
0.02	0.00	0.00	0.28	0.00	0.00	31.29	0.02	0.05	0.07	0.00	0.00	0.06	0.00	0.00	0.38	0.00	0.00	0.01	0.00
0.03	0.00	0.00	0.32	0.00	0.00	31.29	0.02	0.06	0.10	0.00	0.00	0.11	0.00	0.00	1.06	0.00	0.00	0.00	0.00
0.03	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.06	0.07	0.00	0.00	0.08	0.00	0.00	0.10	0.00	0.00	0.01	0.00
0.02	0.00	0.00	0.28	0.00	0.00	7.82	0.00	0.07	0.07	0.00	0.00	0.10	0.00	0.00	0.77	0.00	0.00	0.02	0.00
0.04	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.07	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.03	0.00	0.00	0.38	0.00	0.00	7.82	0.00	0.07	0.07	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.01	0.00
0.76	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.10	0.00	0.00	0.38	0.00	0.00	0.01	0.00
0.02	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.07	0.16	0.00	0.00	0.08	0.00	0.00	0.10	0.00	0.00	0.01	0.00
0.04	0.00	0.00	0.49	0.00	0.00	11.90	0.01	0.05	0.00	0.00	0.00	0.08	0.00	0.00	0.67	0.00	0.00	0.01	0.00
0.01	0.00	0.00	0.14	0.00	0.00	7.01	0.00	0.05	0.16	0.00	0.00	0.11	0.00	0.00	-0.10	0.00	0.00	0.01	0.00
0.02	0.00	0.00	0.20	0.00	0.00	11.13	0.01	0.06	0.20	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00
0.03	0.00	0.00	0.31	0.00	0.00	21.46	0.01	0.06	0.00	0.00	0.00	0.13	0.00	0.00	0.86	0.00	0.00	0.01	0.00
0.27	0.00	0.00	0.34	0.00	0.00	7.01	0.00	0.05	0.03	0.00	0.00	0.10	0.00	0.00	0.67	0.00	0.00	0.00	0.00
0.24	0.00	0.00	0.00	0.00	0.00	33.98	0.02	0.05	0.33	0.00	0.00	0.22	0.00	0.00	0.96	0.00	0.00	0.00	0.00

	Н	lydrochloric Aci	id	Total HAPs (lbs/month)				
	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)	Emissions (lb/month)	Emissions (tons/month)	Emissions (tpy)		
			9			22.5		
0.00	1.67	0.001	0.01	747.67	0.37	4.69		
0.00	1.67	0.001	0.01	451.43	0.23	4.65		
0.00	1.67	0.001	0.01	1007.32	0.50	4.80		
0.00	1.67	0.001	0.01	655.00	0.33	4.82		
0.00	1.67	0.001	0.01	481.52	0.24	4.92		
0.00	1.67	0.001	0.01	1370.69	0.69	5.52		
0.00	1.67	0.001	0.01	674.24	0.34	5.41		
0.00	1.67	0.001	0.01	285.06	0.14	5.09		
0.00	1.67	0.001	0.01	957.79	0.48	4.64		
0.00	1.67	0.001	0.01	1069.91	0.53	5.01		
0.00	1.67	0.001	0.01	793.82	0.40	4.71		
0.00	1.67	0.001	0.01	632.59	0.32	4.56		
0.00	1.67	0.001	0.01	506.96	0.25	4.44		
0.00	1.67	0.001	0.01	703.38	0.35	4.57		
0.00	1.67	0.001	0.01	940.98	0.47	4.54		

Roster of presses going to filter.

Press#	yes/no	Press#	yes/no	yes/no	Press#	yes/no
		21	Υ		26	Υ
12	Υ	22	Υ		27	Υ
14	Υ	24	Υ			
15	Υ	25	Υ			
16	Υ					
		36	Υ			
31	Υ	37	Υ		44	
32	У				45	Υ
33	Υ	41	Υ		46	Υ
35	Υ	42	Υ			
					51	
53	Υ				52	Υ
54	У	77	N			
61	N	78	N		81	N
62	N	79	N		55	N
63	N	80	N			
	New Perm	it 3/2/16				
	36 PRESS T	OTAL		26 TO CLO	TH FILTER	
	30 T NE33 T	OTAL		20 10 010		
	new nermi	itt up to 56	nresses an	 d 70% to fil	ter is requi	rement
	new permi	Tt up to 30	Presses an	70/0 (0 111	Tequi	Cilient

Tuesday, February 01, 2022 12:00:00:000 AM	1510.9
Tuesday, February 01, 2022 12:00:10:000 AM	1511.8
Tuesday, February 01, 2022 12:00:20:000 AM	1511.8
Tuesday, February 01, 2022 12:00:30:000 AM	1511.8
Tuesday, February 01, 2022 12:00:40:000 AM	1506.5
Tuesday, February 01, 2022 12:00:50:000 AM	1506.5
Tuesday, February 01, 2022 12:01:00:000 AM	1506.5
Tuesday, February 01, 2022 12:01:10:000 AM	1495.7
Tuesday, February 01, 2022 12:01:20:000 AM	1495.7
Tuesday, February 01, 2022 12:01:30:000 AM	1495.7
Tuesday, February 01, 2022 12:01:40:000 AM	1494.8
Tuesday, February 01, 2022 12:01:50:000 AM	1494.8
Tuesday, February 01, 2022 12:02:00:000 AM	1494.8
Tuesday, February 01, 2022 12:02:10:000 AM	1485.9
Tuesday, February 01, 2022 12:02:20:000 AM	1485.9
Tuesday, February 01, 2022 12:02:30:000 AM	1485.9
Tuesday, February 01, 2022 12:02:40:000 AM	1486
Tuesday, February 01, 2022 12:02:50:000 AM	1486
Tuesday, February 01, 2022 12:03:00:000 AM	1486
Tuesday, February 01, 2022 12:03:10:000 AM	1511.8
Tuesday, February 01, 2022 12:03:20:000 AM	1511.8
Tuesday, February 01, 2022 12:03:30:000 AM	1511.8
Tuesday, February 01, 2022 12:03:40:000 AM	1515
Tuesday, February 01, 2022 12:03:50:000 AM	1515
Tuesday, February 01, 2022 12:04:00:000 AM	1515
Tuesday, February 01, 2022 12:04:10:000 AM	1512.3
Tuesday, February 01, 2022 12:04:20:000 AM	1512.3
Tuesday, February 01, 2022 12:04:30:000 AM	1512.3
Tuesday, February 01, 2022 12:04:40:000 AM	1507.1
Tuesday, February 01, 2022 12:04:50:000 AM	1507.1
Tuesday, February 01, 2022 12:05:00:000 AM	1507.1
Tuesday, February 01, 2022 12:05:10:000 AM	1505.8
Tuesday, February 01, 2022 12:05:20:000 AM	1505.8
Tuesday, February 01, 2022 12:05:30:000 AM	1505.8
Tuesday, February 01, 2022 12:05:40:000 AM	1501
Tuesday, February 01, 2022 12:05:50:000 AM	1501
Tuesday, February 01, 2022 12:06:00:000 AM	1501
Tuesday, February 01, 2022 12:06:10:000 AM	1505.8
Tuesday, February 01, 2022 12:06:20:000 AM	1505.8
Tuesday, February 01, 2022 12:06:30:000 AM	1505.8
Tuesday, February 01, 2022 12:06:40:000 AM	1505.8
Tuesday, February 01, 2022 12:06:50:000 AM	1505.8
Tuesday, February 01, 2022 12:00:000 AM	1505.8
Tuesday, February 01, 2022 12:07:10:000 AM	1507.1
Tuesday, February 01, 2022 12:07:10:000 AM Tuesday, February 01, 2022 12:07:20:000 AM	1507.1
Tuesday, February 01, 2022 12:07:30:000 AM	1507.1
Tuesday, February 01, 2022 12:07:40:000 AM	1501 1501
Tuesday, February 01, 2022 12:07:50:000 AM	1501 1501
Tuesday, February 01, 2022 12:08:00:000 AM	
Tuesday, February 01, 2022 12:08:10:000 AM	1497.8
Tuesday, February 01, 2022 12:08:20:000 AM	1497.8
Tuesday, February 01, 2022 12:08:30:000 AM	1497.8
Tuesday, February 01, 2022 12:08:40:000 AM	1496.8
Tuesday, February 01, 2022 12:08:50:000 AM	1496.8
Tuesday, February 01, 2022 12:09:00:000 AM	1496.8
Tuesday, February 01, 2022 12:09:10:000 AM	1486.9
Tuesday, February 01, 2022 12:09:20:000 AM	1486.9

Analyte Name	CAS#	Cmpd #1 lb/lb rubber	Cmpd #2 lb/lb rubber	Cmpd #3 lb/lb rubber	Cmpd #5 lb/lb rubber	Cmpd #7 lb/lb rubber	Cmpd #9 lb/lb rubber	Cmpd #10 lb/lb rubber	Cmpd #11 lb/lb rubber	Cmpd #12 lb/lb rubber	Cmpd #13 lb/lb rubber	Cmpd #14 lb/lb rubber	Cmpd #16 lb/lb rubber	Cmpd #17 lb/lb rubber	Cmpd #19 lb/lb rubber	Cmpd #20 lb/lb rubber	Cmpd #22 lb/lb rubber	Cmpd #23 lb/lb rubber
Total VOC		8.27E-04	4.04E-04	1.04E-03	5.87E-04	2.36E-04	1.75E-03	8.66E-04	2.40E-04	6.66E-04	1.42E-03	5.30E-04	8.08E-04	6.23E-03	6.68E-03	6.13E-04	4.78E-04	2.83E-04
Total Speciated Organics		2.54E-04	9.19E-04	5.15E-04	2.92E-04	1.46E-04	1.04E-03	1.63E-03	7.31E-04	9.76E-04	1.57E-03	1.33E-03	3.49E-04	2.78E-03	3.29E-03	3.23E-04	2.95E-04	2.30E-04
Total HAPs		2.99E-05	7.23E-04	1.57E-04	8.36E-05	4.85E-05	5.05E-04	1.34E-03	4.35E-04	6.68E-04	1.36E-03	1.03E-03	6.37E-05	1.06E-03	3.47E-04	7.45E-05	2.06E-04	7.26E-05
Total Organic HAPs		2.99E-05	7.23E-04	1.57E-04	8.36E-05	4.85E-05	5.05E-04	4.35E-04	6.68E-04	1.36E-03	1.03E-03	1.09E-03	1.06E-03	9.11E-04		7.45E-05	2.06E-04	7.26E-05
1,1,1- Trichloroethane	71-55-6	3.54E-06	2.52E-06	3.15E-06	3.80E-06	4.19E-06	4.20E-06	2.52E-06		3.03E-05	3.56E-04	2.05E-06	2.45E-06	1.51E-05	2.25E-06	3.34E-06	4.51E-06	2.04E-06
1,2,4- Trichlorobenzen	120-82-1													1.66E-08				
1,3-Butadiene	106-99-0		1.20E-05		5.84E-06	9.42E-06	7.53E-06	7.43E-06				2.17E-05			1.00E-05	2.56E-05		6.77E-06
1,4- Dichlorobenzene	106-46-7	1.03E-07	7.63E-08	5.52E-08		5.42E-08		5.53E-08		5.78E-08		8.94E-08	9.15E-08	5.27E-08	5.11E-08	9.11E-08		8.08E-08
2-Butanone	78-93-3	1.84E-06	2.77E-06	2.89E-06	2.04E-06		3.02E-06			1.18E-06			1.20E-06		1.30E-05	1.76E-06		1.30E-06
2-Chloro-1,3-	126-99-8								9.08E-06								4.01E-06	
Butadiene 2-Methylphenol	95-48-7			2.98E-08												1.42E-08		
4-Methyl-2- pentanone	108-10-1			1.16E-04														
Acetaldehyde	75-07-0				6.69E-06		7.64E-06		1.65E-06								4.01E-06	
Acetonitrile	75-05-8				5.47E-06													
Acetophenone	98-86-2	5.09E-07	1.39E-06	4.25E-07		8.74E-07	4.39E-04	4.36E-07		2.17E-06	5.05E-07	2.16E-06	6.44E-07	6.49E-07	2.25E-07	8.33E-07	4.01E-06	3.37E-07
Acrylonitrile	107-13-1											3.02E-05						
Aniline	62-53-3		4.16E-07	7.08E-07	2.01E-06				2.46E-07					1.02E-03			4.25E-06	2.83E-06
Benzene	71-43-2	1.08E-06	1.36E-06	1.18E-06								1.15E-06	9.88E-07	1.06E-06	5.62E-06	1.00E-06		
Benzidine	92-87-5				4.53E-06												2.81E-07	
Biphenyl	92-52-4			1.40E-07	3.06E-07													
bis(2- Ethylhexyl)phtha late	117-81-7	4.20E-06	2.48E-06	2.13E-06	3.83E-06	1.15E-05	2.60E-06	2.83E-06	1.67E-06	3.63E-06	1.78E-05	2.41E-06	3.07E-06	4.14E-06	4.41E-06	2.57E-06	2.66E-06	6.50E-06
Carbon Disulfide	75-15-0	2.16E-06	5.35E-04	3.15E-06	3.46E-06		4.20E-06	1.32E-03	3.47E-04	5.75E-04	9.50E-04	8.67E-04	5.66E-06	6.29E-06		4.25E-06	1.63E-04	8.64E-06
Carbonyl Sulfide	463-58-1		3.65E-05						6.60E-07	4.39E-05	3.32E-05	8.80E-05						2.65E-05
Chloroethane	75-00-3												1.48E-06					
Chloromethane	74-87-3	1.06E-06		7.87E-07						8.77E-07			6.61E-07	1.04E-06		9.73E-07		1.05E-06
Cumene	98-82-8	3.64E-08	5.90E-08	5.96E-08	9.03E-08	7.43E-08	2.76E-06	3.20E-08	3.44E-08	4.00E-08	4.55E-08	5.08E-08		4.82E-08		4.27E-08	9.44E-08	2.24E-08
Di-n- butylphthalate	84-74-2	5.47E-08	2.11E-06	3.01E-07	1.38E-07	7.80E-07	7.16E-06	8.30E-08		2.58E-07		4.78E-07	5.40E-08	9.64E-06	2.16E-07	4.47E-07	1.35E-07	3.59E-06
Dibenzofuran	132-64-9	6.38E-08	5.04E-08	1.54E-07				2.77E-08		5.64E-08	3.27E-08	5.70E-08	4.05E-08	3.31E-08		3.99E-08		4.19E-08
Dimethylphthalat e	131-11-3		7.78E-08		1.80E-07		6.72E-08					6.62E-08	5.55E-08	6.18E-08			9.87E-08	
Ethylbenzene	100-41-4				1.34E-06													
Hexachlorobutad iene	87-68-3						3.93E-07											.
Hexane	110-54-3	7.49E-06	1.03E-05	6.96E-06	1.66E-05	9.22E-06	1.64E-05	4.12E-06	3.12E-05	2.69E-06		6.50E-06	5.25E-06	5.26E-06	3.00E-04	2.63E-05	8.53E-06	4.96E-06
m-Xylene + p- Xylene		1.01E-06	1.91E-06	9.03E-06	9.24E-06	3.20E-06												
Methylene Chloride	75-09-2	1.61E-06	1.57E-06	1.57E-06	1.67E-06	1.61E-06	1.84E-06	1.57E-06	2.83E-06		1.67E-06		1.57E-06	1.57E-06	1.56E-06		2.34E-06	1.60E-06
Naphthalene	91-20-3	3.29E-07	4.59E-07	5.78E-07	1.57E-06	2.37E-06	4.04E-06	2.81E-07	1.62E-06	3.71E-07	3.31E-07	6.12E-07	3.50E-07	5.23E-07		3.70E-07	3.00E-06	3.71E-07
o-Toluidine	95-53-4		1.59E-06							2.21E-06								
o-Xylene	95-47-6	0.405.07	E 07E 07	E 40E 03	2.01E-06	1.78E-06	4.005.00	4.405.03	4 505 03	E 07E 07	7 705 07	0.075.00	5 40E 07			F 055 03	E EOE 03	2.005.03
Phenol Propulana Ovida	108-95-2	6.12E-07	5.37E-07	5.19E-07	9.68E-07	4.22E-07	1.28E-06	4.18E-07	4.53E-07	5.37E-07	7.79E-07	2.67E-06	5.19E-07			5.85E-07	5.52E-07	3.96E-07
Propylene Oxide	75-56-9		1.04E-04	F 00F 07					3.63E-05									
Tetrachloroethen e				5.35E-07														
Toluene	108-88-3	4.23E-06	6.20E-06	6.03E-06	1.18E-05	3.00E-06	2.72E-06	2.76E-06	2.30E-06	2.98E-06		3.87E-06	3.96E-05	3.27E-06	9.94E-06	4.49E-06	4.22E-06	5.57E-06

SAFETY DATA SHEET

Issue Date: September 26, 2011 Revision Date: May 27, 2015 Version 1.

1. IDENTIFICATION

Product Identifier:

Product Name 25-I

Other Means of Identification:

SDS # BW-006

UN/ID Not Regulated

Recommended Use of the Chemical and Restriction on Use:

Recommended Use Activated Sonic Liquid Cleaner Concentrate

Details of the Supplier of Safety Data Sheet:

Blue Wave Ultrasonics 960 S. Rolff Street Davenport, Iowa 52802 1-800-373-0144

Emergency Telephone Number

Emergency Telephone (24 Hr) INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance: Amber liquid Physical State: Liquid Odor: Citrus

Classification

Acute toxicity-Oral Category 4
Skin irritation Category 4

Serious Eye Damage/Irritation Category 2, Sub-category B

Signal Word: Warning

<u>Hazard Statements:</u> Harmful if swallowed Causes mild skin irritation

Causes eye irritation



<u>Precautionary Statements - Prevention:</u>

Do not eat, drink or smoke when using this product.

Wear protective gloves and eye protection.

Wash face, hands and any exposed skin thoroughly after handling.

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<u>Precautionary Statements – Response:</u>

IF IN EYES: Rinse cautiously with water for several minutes. If eye irritation persists: get medical attention.

IF ON SKIN (or hair): Take off all contaminated clothing. Rinse skin with water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. Do not induce vomiting. Get medical attention if you feel unwell.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements – Disposal

Dispose of contents/container at an approved disposal plant.

Other Hazards

Harmful to aquatic life.

<u>Unknown Acute Toxicity</u>: Oral 8%, Dermal 10% Inhalation 95%

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Alkyl-Aryl Sulfonate	68584-22-5	<5

If Chemical Name/CAS No is "proprietary" and/or Weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

General Advice: Provide this SDS to medical personnel for treatment.

Eye Contact: Do not allow person to rub eye or keep eye tightly shut. Flush with large amounts of water

for 15 minutes. Gently lift eye lids and flush immediately and continuously with copious

amounts of water. Consult a physician or ophthalmologist if discomfort persists.

Skin contact: Remove contaminated clothing. Rinse with water for 15 minutes. If irritation/redness persist

consult physician.

Inhalation: Remove exposed person to fresh air and support breathing as needed. Consult a physician if

individual declines or if symptoms persist.

Ingestion: Rinse mouth. Do not induce vomiting. Drink large amounts of water. If vomiting occurs

naturally, have victim lean forward to reduce risk of aspiration. Get medical attention if

symptoms occur.

Most important symptoms and effects: May cause skin and eye irritation. May cause irritation to the

mucous membranes and upper respiratory tract.

Note to physicians: Treatment is symptomatic and supportive.

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5. FIRE FIGHTING MEASURES

Flash Point: Noncombustible. Flash Point method: N/D Burning Rate: N/D

Autoignition Temperature: Noncombustible.

LEL: N/D UEL: N/D Flammability Classification: N/D

Extinguishing Media: Use agent suitable for surrounding fire.

Unusual Fire or Explosion Hazards: N/D Hazardous Combustion Products: N/D

Fire-Fighting Instructions: Do not release runoff to sewers or waterways.

Fire-Fighting Equipment: As in any fire, wear a self-contained breathing apparatus (SCBA) with a full face piece

operated in positive-pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

Ventilate affected area.

Environmental Precautions: See section 12 for additional Ecological Information.

Methods of Containment: Prevent further leakage or spillage if safe to do so.

Discard any product, residue, disposable container or Method for Clean-up:

liner in full compliance with federal, state, and local regulations.

For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practices. Use

personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use with adequate ventilation. Do not eat or drink while handling.

Store in tightly closed container. Store away from incompatible substances. Storage:

Incompatible Materials: Very strong acids. Strong oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines No exposure limits noted for ingreients(s). The following information

is given as general guidance.

Adequate ventilation, Safety showers, Eye wash stations. Appropriate engineering controls:

Individual protection measures:

Eye/Face Protection: Use safety glasses or goggles.

Skin and Body Protection: Chemical impervious gloves. Boots, aprons needed for protection

against spill / splashes.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas. General Hygiene:

Avoid contact with skin, eyes, and clothing. Wash hands after handling. Remove any contaminated clothing. If needed take first aid

action shown in section 4 of this SDS.

25-I Page 4/6

Physical State: Liquid Appearance: Amber liquid Color: Amber	PHYSICAL AN	PHYSICAL AND CHEMICAL PROPERTIES Odor: Pine Odor Threshold: Not determined				
Property	Values	Property	Values			
pH Melting Point/Freezing Point Flash Point Flammability (solid, Gas) Lower Flammability Limit Specific Gravity (H2O=1) Solubility in other solvents Auto-ignition Temperature Kinematic Viscosity Explosive Properties	6.5 - 7.0 Not determined Will not burn Not determined 1.11 Not determined Not determined Not determined Not determined Not determined Not determined	Boiling Point/Boiling Range Evaporation Rate Upper Flammability Limits Vapor Pressure Water Solubility (wt/wt) Partition Coefficient Decomposition temperature Dynamic Viscosity Oxidizing Properties	212 F (100 C) Not determined Not determined Not determined 100% Not determined Not determined Not determined Not determined			

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.

<u>Chemical Stability</u>: Stable under recommended storage conditions. <u>Possibility of Hazardous Reactions</u>: None under normal processing.

<u>Polymerization</u>: Hazardous polymerization will not occur. <u>Conditions to Avoid</u>: Keep out of reach of children.

Incompatible Chemicals: Very strong acids. Strong oxidizers.

<u>Hazardous Decomposition Products</u>: Reactions with metals may produce hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye Contact Causes eye irritation.

Skin Contact Causes mild skin irritation.

Inhalation Not normally a problem.

Ingestion May be harmful if swallowed.

Component Information

	Oral LD50	Dermal LD50	Inhalation LC50
Alkyl-Aryl Sulfonate 68584-22-5	530 mg/kg (Rat)	530 mg/kg (Rat)	

Information on physical, chemical and toxicological effects

Symptoms: Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure.

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

STOT: No data available.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity: Oral 8%, Dermal 10% Inhalation 95%

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms

Component Information

Algae/aquatic Fish Toxicity to Crustacea Microorganisms

Alkyl-Aryl Sulfonate 68584-22-5

3: 96 h Oncorhynchus mykiss mg/L LC50

2.9: 48 h Daphnia magna mg/L EC50

Persistence / Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Alkyl-Aryl Sulfonate –Partition Coefficient = 2.

Other Adverse Effects

Not determined.

13. DISPOSAL CONSIDERATIONS

Water Treatment Methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws and

regulations.

California Hazardous Waste Status:

Not listed

14. TRANSPORTATION INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

US DOT

Not regulated.

IATA

Not regulated.

IMDG

Not regulated.

Marine Pollutant This product may meet the definition of a marine pollutant

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15. REGULATORY INFORMATION

International Inventories

Not determined

US FEDERAL

SARA 313

Not determined

US State Regulations

U.S, State Right-to-Know Regulations

Not determined

16. OTHER INFORMATION

NFPA Health Hazards Flammability Instability Special Hazards

0

Health Hazards Flammability Physical Hazards Personal Protection

1 0 0 B

Issue Date: September 26, 2011 Revision Date: May 27, 2015 Revision Note: New format

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

End of Safety Data Sheet

KALCOR PRODUCT ENVIRONMENTAL DATA SHEET

PRODUCT CODE: 094-921PF

PRODUCT DESCRIPTION: Low Gloss Water-Based Anti-Corrosive Coating

WEIGHT-PER-GALLON (@ 77 °F): 11.16 **SPECIFIC GRAVITY (@ 77 °F):** 1.3407

 PHYSICAL DATA:
 WEIGHT
 VOLUME

 NON-VOLATILE (SOLIDS):
 53.00
 37.00

 VOLATILE (WATER):
 45.39
 60.64

 VOLATILE (EXEMPT SOLVENTS):
 0
 0

 VOLATILE (VOC):
 1.61
 2.37

VOLATILE ORGANIC COMPOUNDS (VOC) DATA:lb/galg/LVOC (LESS WATER AND EXEMPTS):0.4553VOC (INCLUDING WATER AND EXEMPTS):0.1922VOC PERCENT BY WEIGHT:1.61

HAZARDOUS AIR POLLUTANTS (HAPS) DATA:

HAPS PERCENT BY WEIGHT: 0.09

VOLATILE COMPOSITION:

CAS#	COMPONENT	WEIGHT %	VOLUME %	VOC EXEMPT	HAPS	SARA	
7732-18-5	Water	45.39	60.64	Υ	N	N	_
111-76-2	Ethylene Glycol n-Butyl Ether	1.52	2.26	N	N	Υ	
107-21-1	Ethylene Glycol	0.09	0.1	N	Υ	Υ	

090221

Air Quality Data Sheet

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

CHEMLOK 205A

Volatile Organic Compounds

Product Density, LBGL 7.72 lb/gal Grams VOC/Liter 703.00 g/l
Non-Volatile by Weight: 24.06 % Pounds VOC/Gallon 5.86 lb/gal

Non-Volatile by Volume: 12.46 %
Volatile by Weight: 75.93 %
Volatile by Volume: 87.54 %

HAP Content

Density of Organic Solvent Blend LB HAP/GAL Solid 43.90

LBGL 6.69 lb/gal Kg HAP/L Solid 5.30

<u>Density of Solids</u>
LB HAP/LB Solid
2.94

LBGL 14.92 lb/gal Kg HAP/Kg Solid 2.94

			Percent o		Formula	
C.A.S. Number	Solvent Description	HAP	by Weight	by Volume	by Weight	by Volume
108-10-1	Methyl isobutyl ketone	X	92.95	93.50	70.58	81.85
107-98-2	Propylene glycol monomethylether		4.07	3.57	3.09	3.13
78-93-3	Methyl ethyl ketone		1.89	1.88	1.43	1.65
64-17-5	Ethyl alcohol		0.69	0.70	0.52	0.61
108-88-3	Toluene	X	0.26	0.24	0.20	0.21
50-00-0	Formaldehyde	X	0.12	0.08	0.09	0.07
1589-47-5	Ether alcohol		0.02	0.02	0.02	0.02

Air Quality Data Sheet

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

CHEMLOK 6220

Volatile Organic Compounds

Product Density, LBGL 8.06 lb/gal Grams VOC/Liter 708.00 g/l
Non-Volatile by Weight: 26.31 % Pounds VOC/Gallon 5.91 lb/gal

Non-Volatile by Volume: 15.93 % Volatile by Weight: 73.68 % Volatile by Volume: 84.07 %

HAP Content

Density of Organic Solvent Blend LB HAP/GAL Solid 37.20

LBGL **7.06 lb/gal** Kg HAP/L Solid **4.50**

Density of Solids LB HAP/LB Solid 2.79

LBGL 13.30 lb/gal Kg HAP/Kg Solid

			Percent o	f Volatile	Formula	Percent
C.A.S. Number	Solvent Description	HAP	by Weight	by Volume	by Weight	by Volume
1330-20-7	Xylene	X	79.18	79.99	58.34	67.25
100-41-4	Ethyl benzene	X	18.69	18.29	13.77	15.38
108-88-3	Toluene	X	1.00	0.97	0.74	0.82
127-18-4	Tetrachloroethylene	X	0.87	0.45	0.64	0.38
67-64-1	Acetone		0.26	0.28	0.19	0.23

Air Quality Data Sheet

The composition given below is the composition of the product AS FORMULATED. Variations may occur on individual batches because of adjustments made during production.

CHEMLOK 6254

Volatile Organic Compounds

Product Density, LBGL 8.40 lb/gal Grams VOC/Liter 719.00 g/l719.00 g/l

Non-Volatile by Weight: 27.49 % Pounds VOC/Gallon 6.00 lb/gal

Non-Volatile by Volume: 16.68 % Volatile by Weight: 72.51 % Volatile by Volume: 83.32 %

HAP Content

Density of Organic Solvent Blend LB HAP/GAL Solid 36.50 LBGL 7.19 lb/gal Kg HAP/L Solid 4.40

LB HAP/LB Solid **Density of Solids** 2.63

LBGL 13.63 lb/gal Kg HAP/Kg Solid 2.63

~ . ~			Percent o		Formula	
C.A.S. Number	Solvent Description	HAP	by Weight	by Volume	by Weight	by Volume
108-88-3	Toluene	X	77.69	77.16	56.33	64.29
1330-20-7	Xylene	X	17.86	18.40	12.95	15.33
100-41-4	Ethyl benzene	X	4.22	4.21	3.06	3.51
67-64-1	Acetone		0.16	0.17	0.11	0.14
79-00-5	1,1,2-trichloroethane	X	0.06	0.03	0.04	0.03
71-43-2	Benzene	X	0.03	0.03	0.02	0.02

SAFETY DATA SHEET

Issue Date: January 28, 2011 Revision Date: May 20, 2015 Version 1.

1. IDENTIFICATION

Product Identifier:

Product Name DIRL-STRIP 606

Other Means of Identification:

SDS # BW-001

UN/ID UN1759

Recommended Use of the Chemical and Restriction on Use:

Recommended Use Powdered Alkaline Cleaner

Details of the Supplier of Safety Data Sheet:

Blue Wave Ultrasonics 960 S. Rolff Street Davenport, Iowa 52802 1-800-373-0144

1 000 272 0111

Emergency Telephone Number

Emergency Telephone (24 Hr) INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance: Brown powder Physical State: Solid Odor: Surfactant

Classification

Acute toxicity – Oral Category 4

Skin corrosion/irritation Category 1, Sub-category B

Serious eye damage/eye Irritation Category 1

Signal Word: Danger

Hazard Statements:

Harmful if swallowed

Causes severe skin burns and eye damage

May cause respiratory irritation





<u>Precautionary Statements - Prevention:</u>

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves and eye protection.

Avoid breathing dust.

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DIRL-STRIP 606 Page 2/6

Precautionary Statements –Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing. If discomfort persists get medical attention.

IF ON SKIN (or hair): Take off contaminated clothing. Rinse skin with water. Wash contaminated clothing before reusing.

IF INHALED: Move to fresh air and keep in a position for breathing.

IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a POISON CENTER if you feel unwell.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container at an approved disposal plant.

Other Hazards

Harmful to aquatic life. <u>Unknown Acute Toxicity</u>

Oral 51%, Dermal 24%, Inhalation 80%

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Sodium Hydroxide	1310-73-2	50-60
Sodium Carbonate	497-19-8	20-30
Sodium Tripolyphosphate	7758-29-4	5-10
Triethylene Glycol	112-27-6	<2

If Chemical Name/CAS No is "proprietary" and/or Weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

General Advice: Provide this SDS to medical personnel for treatment.

Eye Contact: Do not allow person to rub eye or keep eye tightly shut. Flush with large amounts of water

for 15 minutes. Gently lift eye lids and flush immediately and continuously with copious

amounts of water. Consult a physician or ophthalmologist if discomfort persists.

Skin contact: Remove contaminated clothing. Rinse with water for 15 minutes. If irritation/redness persist

consult physician.

Inhalation: Remove exposed person to fresh air and support breathing as needed. Consult a physician if

individual declines or if symptoms persist.

Ingestion: Rinse mouth. Do not induce vomiting. Drink large amounts of water. If vomiting occurs

naturally, have victim lean forward to reduce risk of aspiration. Get medical attention if

symptoms occur.

Most important symptoms and effects: May cause skin and eye irritation. In severe cases, burns, corneal

damage, and blindness may occur. May cause irritation to the

mucous membranes and upper respiratory tract.

Note to physicians: Treatment is symptomatic and supportive.

DIRL-STRIP 606 Page 3/6

5. FIRE FIGHTING MEASURES

Flash Point: Noncombustible. Flash Point method: N/D Burning Rate: N/D

Autoignition Temperature: Noncombustible.

LEL: N/D UEL: N/D Flammability Classification: N/D

Extinguishing Media: Use agent suitable for surrounding fire.

Unusual Fire or Explosion Hazards: N/D Hazardous Combustion Products: N/D

Fire-Fighting Instructions: Do not release runoff to sewers or waterways.

Fire-Fighting Equipment: As in any fire, wear a self-contained breathing apparatus (SCBA) with a full face piece

operated in positive-pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

Ventilate affected area.

Environmental Precautions: See section 12 for additional Ecological Information. Methods of Containment: Prevent further leakage or spillage if safe to do so.

Method for Clean-up: Avoid the generation of dusts during clean-up. Scoop material into suitable

container for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste

disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practices. Use

personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use with adequate ventilation. Do not eat or drink while handling. Store in tightly closed container. Store away from incompatible substances.

Storage: Store in tightly closed container. Store away from incompatible sub-

Incompatible Materials: Hydrocarbons. Organic acids. Inorganic acids. Metal compounds.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION					
	ACGIH TLV	OSHA PEL	NIOSH IDLH		
Sodium Hydroxide	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³		
1310-73-2		(vacated) Ceiling: 2mg/m ³	Ceiling: 2 mg/m ³		
Sodium Carbonate	Ceiling: 3 mg/m ³	TWA: 5 mg/m ³			
497-19-8					
Sodium Tripolyphosphate Ceiling: 15 mg/m ³		TWA: 15 mg/m ³			
7758-29-4					

Appropriate engineering controls: Adequate ventilation, Safety showers, Eye wash stations.

Individual protection measures:

Eye/Face Protection: Use safety glasses or goggles.

Skin and Body Protection: Chemical impervious gloves. Boots, aprons needed for protection

against spill / splashes.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas.

General Hygiene: Avoid contact with skin, eyes, and clothing. Wash hands after

handling. Remove any contaminated clothing. If needed take first aid

action shown in section 4 of this SDS.

DIRL-STRIP 606 Page 4/6

9. PHYSICAL AND CHEMICAL PROPERTIES Physical State: Solid Odor: Surfactant Appearance: Brown Powder Odor Threshold: Not determined Color: Brown Values Property Values Property Ph (1% solution) 12.5 Melting Point/Freezing Point Boiling Point/Boiling Range Not determined Not determined Flash Point Will not burn **Evaporation Rate** Not determined Flammability (solid, Gas) Not determined Upper Flammability Limits Not determined Lower Flammability Limit Not determined Vapor Pressure Not determined Specific Gravity (H2O=1) 65 lbs/ft³ Water Solubility (wt/wt) 30% Solubility in other solvents Partition Coefficient Not determined Not determined Not determined Auto-ignition Temperature Decomposition temperature Not determined Kinematic Viscosity Dynamic Viscosity Not determined Not determined

10. STABILITY AND REACTIVITY

Oxidizing Properties

Not determined

Reactivity: Not reactive under normal conditions.

<u>Chemical Stability</u>: Stable under recommended storage conditions. <u>Possibility of Hazardous Reactions</u>: None under normal processing.

<u>Polymerization</u>: Hazardous polymerization will not occur. <u>Conditions to Avoid</u>: Keep out of reach of children.

<u>Incompatible Chemicals</u>: Hydrocarbons. Organic acids. Inorganic acids. Metal compounds. <u>Hazardous Decomposition Products</u>: Reactions with metals may produce hydrogen gas.

Not determined

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye Contact Causes serious eye damage

Skin Contact Causes severe skin burns and eye damage.

Inhalation May cause respiratory irritation.

Ingestion Harmful if swallowed.

Component Information

Explosive Properties

	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide		=1350 mg/kg (Rabbit)	
1310-73-2			
Sodium Carbonate 497-19-8	=2800 mg/kg	>2000 mg/kg (Rabbit)	2.3:2 h Rat, mg/L, LC50
Sodium Tripolyphosphate 7758-29-4	=3100 mg/kg (Rat)	>7940 mg/kg (Rabbit)	
Triethylene Glycol	=17000 mg/kg (Rat)		

112-27-6

Information on physical, chemical and toxicological effects

Symptoms: Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure.

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by

OSHA, IARC, or NTP.

STOT: May cause respiratory irritation.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity: Oral 51%, Dermal 24%, Inhalation 80%

DIRL-STRIP 606				Page 5/6
Ecotoxicity Harmful to aquatic organic		ECOLOGICAL INFORMAT	ION	
Component Information Sodium Hydroxide 1310-73-2	Algae/aquatic Plants	Fish 45.4: 96 h Oncorthynchus mykiss mg/L LC50 static	Toxicity to Microorganisms	<u>Crustacea</u>
Sodium Carbonate 497-19-8		300: 96 h Lepomis Macrochirus mg/L LC50		200: 48 h Ceriodaphnia Dubia, mg/l EC50
Sodium Tripolyphosphate 7758-29-4		1650: 48 h Leuciscus idus mg/L LC50		
Persistence /Degradability Not determined. Bioaccumulation Not determined. Mobility Not determined Other Adverse Effects Not determined.				
13. DISPOSAL CONSIDERATIONS				
Water Treatment Methods Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations. California Hazardous Waste Status Sodium Hydroxide 1310-73-2 Classified as Toxic/ Corrosive				
14. TRANSPORTATION INFORMATION				
US DOT UN/ID # UN1759)	IATA UN1759		

14. TRANSPORTATION INFORMATION					
US DOT UN/ID # PSN	UN1759 Corrosive solid, n.o.s. (Sodium Hydroxide)	IATA UN1759 Corrosive solid, basic, n.o.s. (Sodium Hydroxide)			
Hazard Class Packing Group	8 II	8 II			
IMDG UN/ID # PSN	UN1759 Corrosive solid, n.o.s. (Sodium Hydroxide)				
Hazard Class Packing Group	8 II				
Marine Pollutant This product may meet the definition of a marine pollutant					

DIRL-STRIP 606 Page 6/6

15. REGULATORY INFORMATION

International Inventories

Not determined

US FEDERAL

CERCLA

Sodium Hydroxide	Hazardous Substance RQs	CERCLA/SARA RQs	Reportable Quantity
(RQ) 1310-73-2	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Not determined

CWA (Clean Water Act)	CWA-Reportable Quantities	CWA-Toxic Pollutant	
Sodium Hydroxide 1310-73-2	1000 lb	No	
	CWA-Priority Pollutant No	CWA-Hazardous Substances Yes	

U.S. State Regulations

U.S.State Right-to Know Regulations

Sodium Tripolyphosphate 7758-29-4	New Jersey	Massachusetts X	Pennsylvania X
Sodium Hydroxide 1310-73-2	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	3	0	2	Cor
<u>HMIS</u>	Health Hazards	Flammability	Physical Haza	ards Personal Protection
	3	0	2	C

Issue Date: January 28, 2011 Revision Date: May 20, 2015 Revision Note: New format

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

End of Safety Data Sheet

Subject:	RTO	Work Instruction Number: EMS 004.17						
		Page:	Page: 1 of 1 Date		e Revised:	1/12/2022		
Written By:	Don English	Approved by:		:				

1.0 SCOPE:

1.1 This Work Instruction applies to the operation of the RTO.

2.0 REFERENCE:

- **2.1** ISO 14001-2015 Environmental Management System Specification.
- 2.2 Smith Engineering RTO Manuals E-11026 Book 1 of 2 and 2 of 2.
- 2.3 Durr Semi-annual records.

3.0 PROCEDURE:

- 3.1 Start up
 - 3.1.1 On the Main Electrical Panel, the process control switch must be in Stand By for ignition. On the Main Menu screen, press START on display. Then press AUTO START on next screen. Follow directions on display if any issues. Once ignition has been verified, The RTO will go into Pre-Heat Mode. Once the retention chamber reaches an average temperature of 1500° F, The process control switch on the main electrical panel will then need to be switched over to Oxidize.
- 3.2 Idle Enable/Disable
 - **3.2.1** On the Main Menu screen, press the IDLE MODE button. The process control switch on the main electrical cabinet MUST be in Stand By to enable Idle Mode. On the next screen press the ENABLE button.
 - **3.2.2** To Disable Idle the process control switch must be in Stand By. On the Idle Menu Screen, push Disable Idle Button. The RTO will then go into Pre-Heat Mode until the retention chamber reaches an average temperature of 1500°. Once 1500° is reached, the RTO will then go into Stand By mode. Once in Stand By mode the RTO process control can then be switched over to Oxidize.
- 3.3 Shut down
 - **3.3.1** On the Main Menu screen, press the SHUTDOWN button. On the next screen press press the red SHUTDOWN button for auto shutdown.
- **3.4** General Information Operating Variables

Pursuant to PTI No. 57-05C, the RTO controls emissions from EU-ADHESIVEDIP1 (DIP1), EU-ADHESIVEDIP1 (DIP2), EU-APM1 (APM1), EU-APM2 (APM2), EU-PRODPLUS (APM3), EU-MANUALBOOTH (WIB), and EUTURBOSPRAY (Turbospray).

- **3.4.1** Hi Alarm set point is retention chamber temperature of 1700°.
- 3.4.2 Low Alarm set point is retention chamber temperature of 1450° (minimum burn is

1400°)

- **3.4.2.1** Shut down Cementing operations if minimum 1400° is reached.
- **3.4.3** Red on chart recorder Inlet temperature.
- **3.4.4** Blue on chart recorder Retention chamber temperature.
- **3.4.5** Green on chart recorder Exhaust temperature.
- **3.4.6** Pressure drop monitor at the permanent total enclosure NDOs setpoint is 0.007 inches of water pressure differential for EUTURBOSPRAY
 - **3.4.6.1** Shutdown EUTURBOSPRAY if minimum pressure differential of 0.007 inches of water is not maintained.

Work Instruction: EMS 004.17 Revision Date: 4/24/2020 Page: 2 of 3

4.0 Preventive Maintenance

The following provides details regarding the preventative maintenance program for FGRTO including identification of the personnel responsible for overseeing the inspection, maintenance, and repair of aircleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

Unit	Item inspected	Frequency	Responsibility	Replacement Parts
RTO	Inspect RTO fume collector for solids	Weekly	Maintenance	
	Lube fan motors	Quarterly	Maintenance	
	Change Filters	Semi-Annually	Maintenance	RTO Combustion Air Filter, Hydraulic Filters & Bag Filters
	Inspect Micro Ratio Valve	Semi-Annually	Maintenance	, ,
	Inspect Igniter	Semi-Annually	Maintenance	Spark Igniter
	Inspect UV Detector	Semi-Annually	Maintenance	UV Detector
	Calibrate Thermocouples	Annually	Contractor	RTO Bottom & Top Thermocouples
ĺ	Inspect RTO Flash Drive	Annually	Manufacturer	·
	Supply Fan & Motor Inspection	Annually	Manufacturer	
	Burner & Gas Train Inspection	Annually	Manufacturer	
	Combustion Blower & Motor Inspection	Annually	Manufacturer	
	Hydraulic System Inspection	Annually	Manufacturer	
	Electrical Controls Inspection	Annually	Manufacturer	Honeywell Automatic Primary Controller
	RTO Damper Inspection	Annually	Manufacturer	Poppet Directional Valve
	Combustion Chamber Inspection	Annually	Manufacturer	Burner Block
	Lower Plenum & Manifold Inspection	Annually	Manufacturer	
	Filter House PM Inspection	Annually	Manufacturer	
EUTURBOSPRAY	Verify accuracy of each transducer and visually inspect sensing tubes for leaks, blockage, or damage.	Semi-Annually	Maintenance	Magnehelic gauge

5.0 MAP - Malfunction Abatement and Equipment Monitoring Program

This program is intended to identify any abnormal conditions or malfunctions associated with the air pollution control systems. The following table lists the equipment that could cause the emission limits to be exceeded in the event of a malfunction, the monitored operating conditions, and the corrective actions to be taken to achieve compliance during a malfunction of the equipment.

Malfunction Abatement and Equipment Monitoring Program

Unit	Operating Condition	Operating Range	Monitoring Frequency	Corrective Action in the event of Malfunction
RTO	Temperature	Minimum 1400° F	Continuous	Do not operate the coating processes unless the RTO is within the proper operating range. In the event of an RTO system fault, the system will shut down and sound an alarm. If the RTO faults and shuts down, all coating operations will be shutdown by interlocks within Sominutes. The fault should be examined to determine the cause of the out of range reading and a repair determined. After the problem has been fixed, the RTO system must be restarted to return the unit to operation before coating operations can resume.
PeTE for EUTURBOSPRAY	Differential Pressure	Negative Pressure (0.007 in w.c.)	Continuous	Do not operate EUTURBOSPRAY unless it is under negative pressure (airflow into the enclosure). If the differential pressure drops below 0.007 inches water column, EUTURBOSPRAY will be shutdown automatically by interlocks within <5>

Work Instruction:	EMS 004.17	Revision Date: 4/24/2020	Page: 3 of 3
			minutes.
			In the event of a malfunction, follow procedures
			outlined in the Malfunction Abatement
			Contingency Plan.

6.0 Malfunction Abatement Contingency Plan

Malfunction Abatement Contingency Plan

Condition	Decision	Response	Condition to Response	Action
1. Malfunction discovered.	Can floor personnel repair the malfunction?	Yes	Repairs can be completed within 1 hour.	Complete repairs. Notify supervisor. Review PM/MAP for updates if necessary.
			Repairs cannot be completed within 1 hour.	Inform supervisor and maintenance of the malfunction immediately. Proceed to condition #2.
		No		Inform supervisor and maintenance of the malfunction immediately. Proceed to condition #2.
2. Maintenance informed of malfunction.	Can maintenance repair the malfunction?	Yes	Repairs can be completed in within 1 hour	Complete repairs. Notify supervisor. Review PM/MAP for updates if necessary.
			Repairs cannot be completed within 1 hour.	Inform management of the malfunction immediately. Proceed to condition #3.
		No		Inform management of the malfunction immediately. Proceed to condition #3.
3. Management informed of malfunction. Estimate the	Is the malfunction likely to result in emissions that will exceed permit limits?	Yes	Repairs will exceed 2 hours.	Management must take immediate action to minimize the potential to exceed permit emission limits. Proceed to condition #4.
Estimate the malfunctions effect on capture/destruction of HAP and VOC.			Repairs will be <2 hours, but > 1 hour.	Management must take immediate action to minimize the potential to exceed permit emission limits. Proceed to condition #4.
			Repairs can be completed within1 hour.	Proceed with repairs. Monitor time to complete repairs. If repair time > 1 hour, proceed to condition #4.
		No		Proceed with repairs. Monitor emission estimates. If emission estimates exceed permit limits, proceed to condition #4.
Reduction of potential to exceed permit emission limits. Management must take.		Yes	Emission limits were exceeded for > 2 hours.	Notify MDEQ-AQD of the malfunction within 48 hours. Provide written report to the MDEQ-AQD within 10 days of the occurrence. Review PM/MAP program to prevent
Management must take corrective measures to ensure that emission levels do not exceed permit conditions:			Emission limits were exceeded for < 2 hours, but > 1 hour.	any reoccurrence of the malfunction. Notify MDEQ-AQD of the malfunction within 48 hours. Review PM/MAP program to prevent
a) Reduce production. b) Stop Production.			Emission limits were exceeded for < 1 hour.	any reoccurrence of the malfunction. Review PM/MAP program to prevent any reoccurrence of the malfunction.
		No		Review PM/MAP program to prevent any reoccurrence of the malfunction.

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DISTRIBUTION

Hutchinson Computer Network system RTO

Work Instruction: EMS 004.17 Revision Date: 4/24/2020 Page: 5 of 3

REVISIONS

EMS Work Instruction	Rev. No.	Ву	Date	Description of Revision
004	.00	Steve Chick	05-07-01	Original
004	.01	Ryan Glass	6/18/01	Revised 5.1 to reflect accuracy check requirement.
004	.01	Steve Chick	09-06-02	Document Review – No Changes
004	.01	Steve Chick	07-03-03	Document Review – No Changes
004	.02	Steve Chick	01/19/04	Changed 2.3,4.4.2,5.1 – Smith Engineering to Pro-Environmental Added Check Daily to 4.1, Added 4.1.4 and Added 4.1.4.1
004	.02	Steve Chick	07/26/04	Document Review – No Changes
004	.03	Steve Chick	07/14/05	Document Review – Changed to Barry Controls and changed distribution to RTO from Maintenance Dept.
004	.04	Steve Chick	06/20/06	14001-2004 Review and update
004	.05	Mike Clingan	5/23/08	Document Review – Modified the Start-up, Idle, and Shutdown procedures to reflect the new display panel and chart recorder.
004	.06	Judy Lopez / Mike Clingan	6/26/09	Modified 5.0 from 5 years to 10 years between destructive testing
004	.06	Mike Clingan	7/20/10	Document Review – No Changes
004	.07	Mike Clingan	5/18/11	Modified 4.0 Preventative Maintenance to reflect actual PM's taking place.
004	.07	Mike Clingan	7/22/11	Document Review – No Changes
004	.08	Mike Clingan	7/17/12	Document Review - Modified 3.1 Start –up and 3.2 Idle Enable/Disable
004	.08	Mike Clingan	7/22/13	Document Review – No Changes
004	.09	Don English	4/3/15	Document Review – Organizational name change. Owner name change to Don English.
004	.10	Don English	2/17/16	Document Review – Change 2.3,4.4.2 , 5.1 Pro-Environmental to Adwest Technologies.
004	.11	Don English	7/15/16	Document Review – Change 2.3,4.5.2 and 5.1 to Durr.
004	.12	Don English	3/3/17	Document Review – Removed 5.0 Destructive Efficiency Testing every 10 yrs or as required by DEQ. Move 5.1 down to 5.0.
004	.13	Don English	1/25/18	Document Review – Plant Mgr. Change from Jeff Schultz to Carl Purvis
004	.14	Don English	5/14/2018	Add annual pressure drop monitoring on DIP 1,2, APM 1,2,3 and

				WIB.
004	0.15	Don English	7/25/18	Draft – Updates for MAP requirements in PTI No. 57-05C
004	0.16	Don English	5/10/19	Document Review-No Changes
004	0.17	Don English	4/24/20	Document Review-No Changes.
004	0.17	Don English	2/19/21	Document Review-No Changes.
004	0.17	Don English	1/12/22	Document Review-No Changes.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation

May 29, 2021

19 00 [1491]

PRODUCT NUMBER

F75BC6

PRODUCT NAME

Fast Production Enamel, Gloss Black

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY 101 W. Prospect Avenue Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Hazard Category (for SARA 311.312)

F75BC6 = | Acute | Chronic | Fire |

Product WeightSpecific GravityFLASH POINT7.63 lb/gal0.9245 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Lt. Aliphatic Hydrocarbon Solvent 64742-89-8	N	N	N	N	27	33
Toluene 108-88-3	N	Υ	Υ	Υ	8	8
Ethylbenzene 100-41-4	N	Υ	Υ	Υ	0.2	< 1
Xylene 1330-20-7	N	Υ	Υ	Υ	1	1
2-Methyl-1-propanol 78-83-1	N	Υ	N	N	18	20
2-Methoxymethylethoxypropanol 34590-94-8	N	N	N	N	1	1
1-Methoxy-2-Propanol Acetate 108-65-6	N	N	N	N	2	1

Regulated Compounds

	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Cobalt Compound	N	N	Υ	Υ	0.1	

Volatile Organic Compounds - U.S. EPA / Canada

	F75BC6		
	LB/Gal	g/L	
Coating Density	7.63	914	
	By wt	By vol	
Total Volatiles	58.8%	68.5%	
Federally exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	58.8%	68.5%	
Percent Non-Volatile	41.2%	31.5%	
VOC Content	LB/Gal	g/L	
Total	4.48	537	
Less exempt solvents	4.48	537	
Of solids	14.24	1706	
Of solids	1.42 lb/lb	1.42 kg/kg	
	By wt		
By wt LVP-VOC	58.1%		

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) 1.44

Volatile Organic Compounds - California

	F75BC6		
	LB/Gal	g/L	
Coating Density	7.63	914	
	By wt	By vol	
Total Volatiles	58.8%	68.5%	
Exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	58.8%	68.5%	
Percent Non-Volatile	41.2%	31.5%	
VOC Content	LB/Gal	g/L	
Total	4.48	537	
Less exempt solvents	4.48	537	
Of solids	14.24	1706	
Of solids	1.42 lb/lb	1.42 kg/kg	
	By wt		
By wt LVP-VOC	58.1%		

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) 1.36

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	F75BC6		
	LB/Gal	g/L	
Coating Density	7.63	914	
	By wt	By vol	
Total Volatiles	58.8%	68.5%	
Exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	58.8%	68.5%	
Percent Non-Volatile	41.2%	31.5%	
VOC Content	LB/Gal	g/L	
Total	4.48	537	
Less exempt solvents	4.48	537	
Of solids	14.24	1706	
Of solids	1.42 lb/lb	1.42 kg/kg	

Volatile Organic Compounds - EU Directive 2004/42/EC

	F75BC6		
	By wt	By vol	
Total Volatiles	58.8%	68.5%	
VOC Content	LB/Gal	g/L	
Total	4.48	537	

Volatile Organic Compounds - EU Directive 2010/75/EU

	F75BC6		
	By wt	By vol	
Total Volatiles	58.8%	68.5%	
VOC Content	LB/Gal	g/L	
Total	4.48	537	

Volatile Organic Compounds - Mexico

F75BC6		
LB/Gal	g/L	
7.63	914	
By wt	By vol	
58.8%	68.5%	
0.0%	0.0%	
58.8%	68.5%	
41.2%	31.5%	
LB/Gal	g/L	
4.48	537	
4.48	537	
14.24	1706	
1.42 lb/lb	1.42 kg/kg	
	LB/Gal 7.63 By wt 58.8% 0.0% 58.8% 41.2% LB/Gal 4.48 4.48	

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	F75BC6		
	LB/Gal	kg/L	
Volatile HAPS	0.70	0.084	
Of solids	2.24	0.268	
Of solids	0.22 lb/lb	0.22 kg/kg	

Air Quality Data

Density of Organic Solvent Blend

6.55 lb/gal

Photochemically Reactive

Yes

Additional Regulatory Information

US EPA TSCA:

Not Applicable

Relevant identified uses of the substance or mixture and uses advised against:

Not Applicable

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

ENVIRONMENTAL DATA SHEET

(Certified Product Data Sheet)

Date of Preparation

May 29, 2021

14 00 [1491]

PRODUCT NUMBER

F75BC7

PRODUCT NAME

Fast Production Enamel, Flat Black

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY 101 W. Prospect Avenue Cleveland, OH 44115

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED. Variations may occur on individual batches due to adjustments made during production.

Hazard Category (for SARA 311.312)

F75BC7 = | Acute | Chronic | Fire |

Product WeightSpecific GravityFLASH POINT8.59 lb/gal1.0345 °F PMCC

Volatile Ingredients

Chemical / Compound	SARA 302 EHS	CERCLA	SARA 313 TC	HAPS 112	% by Weight	% by Volume
Lt. Aliphatic Hydrocarbon Solvent 64742-89-8	N	N	N	N	28	38
Toluene 108-88-3	N	Υ	Υ	Υ	5	6
Ethylbenzene 100-41-4	N	Υ	Υ	Υ	0.1	< 1
2-Methyl-1-propanol 78-83-1	N	Υ	N	N	17	22

Volatile Organic Compounds - U.S. EPA / Canada

	F75BC7		
	LB/Gal	g/L	
Coating Density	8.59	1028	
	By wt	By vol	
Total Volatiles	51.5%	68.6%	
Federally exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	51.5%	68.6%	
Percent Non-Volatile	48.5%	31.4%	
VOC Content	LB/Gal	g/L	
Total	4.41	529	
Less exempt solvents	4.41	529	
Of solids	14.06	1685	
Of solids	1.06 lb/lb	1.06 kg/kg	
	By wt		
By wt LVP-VOC	51.0%		

Maximum Incremental Reactivity (MIR) (per US EPA Aerosol Ctg Rule, MIR Values 2009) 0.97

Volatile Organic Compounds - California

	F75BC7		
	LB/Gal	g/L	
Coating Density	8.59	1028	
	By wt	By vol	
Total Volatiles	51.5%	68.6%	
Exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	51.5%	68.6%	
Percent Non-Volatile	48.5%	31.4%	
VOC Content	LB/Gal	g/L	
Total	4.41	529	
Less exempt solvents	4.41	529	
Of solids	14.06	1685	
Of solids	1.06 lb/lb	1.06 kg/kg	
	By wt		
By wt LVP-VOC	51.0%		

Maximum Incremental Reactivity (MIR) (per California Air Resources Board Aerosol Products Regulation, MIR Values 2010) 1.02

Volatile Organic Compounds - South Coast Air Quality Management District, California, US

	F75BC7		
	LB/Gal	g/L	
Coating Density	8.59	1028	
	By wt	By vol	
Total Volatiles	51.5%	68.6%	
Exempt solvents			
Water	0.0%	0.0%	
Organic Volatiles	51.5%	68.6%	
Percent Non-Volatile	48.5%	31.4%	
VOC Content	LB/Gal	g/L	
Total	4.41	529	
Less exempt solvents	4.41	529	
Of solids	14.06	1685	
Of solids	1.06 lb/lb	1.06 kg/kg	

Volatile Organic Compounds - EU Directive 2004/42/EC

	F75	BC7
	By wt	By vol
Total Volatiles	51.5%	68.6%
VOC Content	LB/Gal	g/L
Total	4.41	529

Volatile Organic Compounds - EU Directive 2010/75/EU

	F75	BC7
	By wt	By vol
Total Volatiles	51.5%	68.6%
VOC Content	LB/Gal	g/L
Total	4.41	529

Volatile Organic Compounds - Mexico

	F75BC7			
	LB/Gal	g/L		
Coating Density	8.59	1028		
	By wt	By vol		
Total Volatiles	51.5%	68.6%		
Exempt solvents				
Water	0.0%	0.0%		
Organic Volatiles	51.5%	68.6%		
Percent Non-Volatile	48.5%	31.4%		
VOC Content	LB/Gal	g/L		
Total	4.41	529		
Less exempt solvents	4.41	529		
Of solids	14.06	1685		
Of solids	1.06 lb/lb	1.06 kg/kg		

Hazardous Air Pollutants (Clean Air Act, Section 112(b))

	F75BC7		
	LB/Gal	kg/L	
Volatile HAPS	0.42	0.051	
Of solids	1.35	0.162	
Of solids	0.10 lb/lb	0.10 kg/kg	

Air Quality Data

Density of Organic Solvent Blend

6.45 lb/gal

Photochemically Reactive

Yes

Additional Regulatory Information

US EPA TSCA:

Not Applicable

Relevant identified uses of the substance or mixture and uses advised against:

Not Applicable

Waste Disposal

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

FCE Summary Report

Facility:	Hutchinson Aerospace & Industry						SRN:	N6496
Location :	1: 1300 S COUNTY FARM RD P.O. Box 160				District :	Lansing		
							County:	GRATIOT
City:	THACA	State:	MI	Zip Code :	48847	Comp Status		Compliance
Source Clas	ss: SM OPT	OUT				Staf	f: Michel	le Luplow
FCE Begin I	Date: 3/29/21					FCE Date	Completion :	3/29/2022
Comments	:							

List of Partial Compliance Evaluations:

Activity Date	Activity Type	Compliance Status	Comments
03/29/2022	On-site Inspection		Onsite, unannounced inspection to determine compliance with optout PTI 57-05C
03/04/2022	MAERS	Compliance	2021 MAERS received electronically. Check MAERS for any review comments

Michelle Name:	Luplo	w Date:	5/4/22	Supervisor:	8M	
					Page 1 of 1	